Remarks/Arguments

Applicants reply to the Office Action dated May 13, 2009 within three months. The Examiner rejects all pending claims in the application. Claims 1, 3-11, 13-18 and 20-23, 25-28 and 42-45 (5 independent claims; 28 total claims) remain pending in the application. Support for the amendments may be found in the originally-filed specification, claims, and figures. Reconsideration of this application is respectfully requested.

Examiner's Response to Previously Presented Arguments

Preliminarily, prior to specifically addressing the outstanding Office Action, Applicants respectfully submit that the Examiner has not yet cited any reference or combination of references that disclose or contemplate discrete portions of a porous material to be densified being placed respectively into each of the **multiple individual modules**, and that these modules subsequently undergo **continuous loading** into a CVI chamber.

The Examiner asserts that the cited references, in combination, "fairly suggest" the use of, at least, "continuous loading" of modules even though none of the references individually disclose or contemplate the same. However, the Examiner implicitly concedes that, individually, the references do not disclose or contemplate, at least, "continuous loading" of modules. Accordingly, the Examiner has no support for the assertion that the combination of references somehow "fairly suggest" at least, "continuous loading" of modules.

In contrast, as described in, for example, paragraph [0013] of the present specification, the present claims provide that a "furnace can be loaded or unloaded without lowering the temperature of the CVI chamber and thereby maintaining the temperature in the CVI chamber uniform...[and therefore] reduce[] the total densification cycle time." Applicants submit that exposure of the porous materials in the CVI chamber and CVI chamber conditions are subject to careful control. The present claims achieve this careful control while decreasing cycle times and, accordingly, reducing energy use.

§ 102 Rejections

Applicants note that in the Final Office Action dated February 3, 2009, the Examiner rejected claims 45 and 47 under 35 U.S.C. § 102(b) as being anticipated by Purdy et al. (U.S. Publication No. US 2001/0019752). Applicants traversed this rejection in, among other places, the Reply filed on March 20, 2009 and the Reply filed April 22, 2009. The outstanding Office Action does not contain any reference to this rejection. Applicants interpret this as a withdrawal

of the rejection and respectfully submit that the Examiner so explicitly state the same. However, if the Examiner did not intend to withdraw the rejection, in an effort to fully reply to the outstanding Office Action, Applicants respectfully traverse the rejection for at least the reasons set forth in the Reply filed on March 20, 2009 and the Reply filed April 22, 2009.

Objection to the Drawings

The Examiner objects to the Drawings. Applicants submit amended drawings herewith. Accordingly, Applicants request that the objection be withdrawn.

§ 103 Rejections

Claims 1, 3-11, 13-20, 22, 23, 25-29, and 42-45

The Examiner rejects claims 1, 3-11, 13-20, 22, 23, 25-29, and 42-45 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 3,944,686 to Froberg ("Froberg"), in view of U.S. Publication No. 2001/0019752 to Purdy et al. ("Purdy"), and U.S. Patent No. 5,348,774 to Golecki et al. ("Golecki"). Applicants respectfully disagree with these rejections, but Applicants amend the claims in order to clarify the patentable aspects of the claims and to expedite prosecution.

Applicants submit that Purdy discloses a chamber that is fixed to the reaction chamber. Purdy does not disclose or contemplate means by which the fixed chamber is able to be moved, much less that such movement is desired. Moreover, Purdy does not disclose or contemplate a module having, at least, "a gas inlet and a gas outlet" as recited in claim 1 and as similarly recited in claims 11, 23, 26, and 45. Further, Purdy does not disclose or contemplate, at least, "wherein each individual module comprises a top gas chamber, a central chamber, and a bottom gas chamber" as recited in claim 9.

As discussed previously, Applicants submit that Golecki teaches that the porous material **surrounds** the susceptor. In contrast, the claims clearly recite that discrete portions of the porous material are placed **into** (within) one of a plurality of individual modules, and further that the porous material is enclosed by said module. Additionally, because the purported "module" of Golecki is the mechanism for heating by induction and because it is mounted securely within the chamber, contrary to the assertions by the Examiner, Golecki cannot be easily extended into a continuous, moving system. Moreover, Golecki does not disclose or contemplate a module having, at least, "a gas inlet and a gas outlet" as recited in claim 1 and as similarly recited in claims 11, 23, 26, and 45. Further, Golecki does not disclose or contemplate, at least, "wherein

each individual module comprises a top gas chamber, a central chamber, and a bottom gas chamber" as recited in claim 9.

The Examiner asserts that Golekci discloses, "[t]he present process can also be made into a continuous process, by straightforward extensions of the system shown in FIG. 1." However, Golecki makes no other description or mention of what is meant by a continuous process. Golecki FIG 1 discloses a conventional furnace. To move porous materials into and out of the furnace, the furnace must be cooled, the porous materials must be removed, and new porous materials must be inserted. In this regard, Applicants submit that Golecki used the term "continuous" to instead mean "sequential" as Golecki FIG. 1 does not disclose or contemplate a "continuous loading" method or apparatus as is recited in the presently pending claims.

Further yet, Applicants submit that while Froberg may teach treatment of "a pair of continuous elongated sheets," Froberg does not disclose or contemplate the use of at least, an "individual module," as recited in claim 1 and as similarly recited in claims 11, 23, 26, and 45. Further, Froberg yields one, large piece of treated porous material and not, at least, "discrete portions of a porous material," as recited in claim 1 and as similarly recited in claims 11, 23, 26, and 45.

Thus, whether taken alone or in combination, Froberg, Purdy and Golecki still fail to disclose or contemplate each and every of the presently claimed elements. While Froberg may teach treatment of "a pair of continuous elongated sheets," the teachings of static fixtures as in Purdy and Golecki are not adaptable for use with Froberg's process. Further, it would be impossible to produce the "pair of continuous elongated sheets" as made by Froberg using the teachings of Purdy and Golecki. Therefore, Purdy and Golecki teachings are inconsistent with Froberg's process.

Accordingly, because Froberg, Purdy and Golecki fail to teach each and every element of independent claims 1, 11, 23, 26, and 45, whether alone or in combination, Applicants submit that these claims are not rendered obvious by the references. Similarly, 3-10, 13-18, 20-22, 25, 27-28, and 42-44 which variously depend therefrom are likewise not rendered obvious by the references for the same reasons as set forth above, in addition to their own respective features. Therefore, Applicants respectfully request withdrawal of the § 103 rejection of claims 1, 3-11, 13-20, 22, 23, 25-29, and 42-44.

Claim 21

The Examiner rejects claim 21 under 35 U.S.C. §103(a) as being unpatentable over Froberg, Purdy, Golecki, and JP 408002976A to Sekiya et al. ("Sekiya"). Applicants respectfully disagree with these rejections, but Applicants amend the claims in order to clarify the patentable aspects of the claims and to expedite prosecution.

Claim 21 depends from claim 11. Applicants submit that Sekiya does not cure the deficiencies of Froberg, Purdy, and Golecki as set forth above. Accordingly, Applicants submit that claim 21 is allowable for at least the same reasons as claim 11. Thus, Applicants request withdrawal of this rejection.

Claim 46

The Examiner rejects claim 46 under 35 U.S.C. §103(a) as being unpatentable over Froberg, Purdy, Golecki, and U.S. Patent No. 6,083,560 to Fisher et al. ("Fisher"). Applicants respectfully disagree with these rejections, but Applicants amend the claims in order to clarify the patentable aspects of the claims and to expedite prosecution. Claim 46 has been canceled, obviating the foregoing rejection. Accordingly, Applicants request withdrawal of this rejection.

CONCLUSION

In view of the above remarks and amendments, Applicant respectfully submits that all of the currently pending claims properly set forth that which Applicant regards as his invention and are allowable over the cited references.

Accordingly, Applicant respectfully requests reconsideration and allowance of all pending claims. The Examiner is invited to telephone the undersigned at (602) 382-6337 at the Examiner's convenience, if that would help further prosecution of the subject Application. Applicant authorizes and respectfully requests that any fees due be charged to Deposit Account No. 19-2814. **This statement does NOT authorize charge of the issue fee**.

Respectfully submitted,

Date: August 5, 2009

By: _____
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